

Please replace paragraph [0017] with the following paragraph (a marked-up copy of the amended paragraph is included in Appendix attached to this amendment):

A' [0017] The object of the invention is to achieve as completely as possible the removal of recoverable waste products and non-recoverable waste products [used], using a device that is simpler to use and easier to regulate, while reducing the environmental impact to a minimum.

After paragraph [0017] insert the following paragraphs [0017.1] to [0017.17]:

A<sup>2</sup> [0017.1] The present invention is directed to a method for removing recoverable waste products and non-recoverable waste products, comprising feeding recoverable waste products and non-recoverable waste products into one end of a substantially horizontally fixed container as material, continuously or discontinuously transporting the material to another end of the container, 60 - 80% of energy input being carried out on the material in an area of a first quarter of the container based upon the one end of the container into which the material is fed, and a remaining 20 - 40% of energy input being transferred to the material in other areas of the container, discharging an entire exhaust gas-solids mixture from the container, and subsequently subjecting the exhaust gases and the solids to an energy recovery process.

[0017.2] The present invention is also directed to apparatus for removing recoverable waste products and non-recoverable waste products, comprising a tubular container with a feed opening for recoverable and non-recoverable waste products as material on one end, a discharge opening for the exhaust gas-solids mixture on another end, a shaft arranged centrally through the container,

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devices positioned on the shaft, and at least one of a device for cracking hydrocarbons and a device for gasification of solids from the container positioned after the discharge opening of the container.

[0017.3] The materials fed to the container can comprise a residual moisture of 10%.

[0017.4] The material can be transported continuously at a speed of 18 m/h to a discharge opening.

[0017.5] The energy input on the material of 70% can be carried out in the first quarter of the container. Each further quarter of the container subsequent to the first quarter can include an energy input of 10%. The energy input in the first quarter can be carried out by a burner. The energy input in the other areas of the container can be carried out by heated air. The energy input can be carried out at least in the first quarter directly on the material.

[0017.6] A maximum temperature of 600 -700 °C can be implemented in the container to start the process.

[0017.7] The discharged exhaust gas-solids mixture can be fed into a device for cracking long-chain hydrocarbons after the container.

[0017.8] After being discharged from the container the exhaust gas-solids mixture or after cracking of long-chain hydrocarbons in a further process, the exhaust gas-solids mixture can be conveyed to a device for gasification of energy components. The gasification can be carried out with hypostoichiometric air supply. The gasification can be regulated via a partial combustion process. Steam can be added to the gasification process.

[0017.9] The tubular container can be composed of sheet metal in a double-walled construction.

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[0017.10] The feed opening can be arranged as a stuffing screw with a gate valve in an upper front area of the container.

[0017.11] A burner can be arranged in a lower front area of the container. The shaft can be tubular.

[0017.12] The devices positioned on the shaft can comprise devices to transport the material. The devices positioned on the shaft can be paddles. The paddles can comprise pitched surfaces. The devices positioned on the shaft can be attached to the shaft with keyed joints. The shaft can be located outside the container.

[0017.13] Grates to collect the material can be arranged over an entire length of the container in a lower area.

[0017.14] A blade-like device can be arranged at the discharge opening of the container for discharging the exhaust gas-solids mixture.

<sup>2</sup>  
A<sub>610</sub> [0017.15] A device for cracking long-chain hydrocarbons and a device for the gasification of the exhaust gas-solids mixture can be positioned after the container, and can comprise one device.

[0017.16] The tubular container can comprise an ignition source in an area of the discharge opening. The ignition source can be a burner with an open flame or a spiral-wound filament.

[0017.17] The tubular container can comprise a pressure release opening in an upper part in an area of the discharge opening. The pressure release opening can be a flap or a weighted safety valve.

IN THE ABSTRACT

Please add an Abstract of the Disclosure on a separate sheet, as follows:

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ABSTRACT OF THE DISCLOSURE

A<sup>3</sup> Method and apparatus used in the field of waste management for utilizing recoverable waste products as efficiently as possible. The invention reduces the environmental impact of such a method to a minimum. The recoverable waste products and non-recoverable waste products are fed into one end of a substantially horizontally fixed container as material, and are transported in a continuous or discontinuous manner to another end of the container, 60 - 80% of energy input being carried out on the material in an area of a first quarter of the container, and a remaining 20 - 40% of energy input being transferred to the material in other areas of the container.

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